

**REMARKS/ARGUMENTS****I. Status of the Claims**

Claims 1-14 were pending. Claims 1, 2, 3, and 11 have been amended. Claims 5 and 6 have been withdrawn. New claims 15-18 have been added. Claims 1-4, and 7-18 are pending.

**II. Amendments to the Specification**

The Examiner requested the Applicant to correct typographical, grammatical and idiomatic errors in the specification. The specification has been amended to correct such errors.

Additionally, the Examiner requested the Applicant to complete the status of any copending, parent, or cross-referenced applications. There are no copending, parent, or cross-referenced applications related to the present application at this time.

**III. A New Oath/Declaration is Provided**

The Examiner objected to the Declaration because it does not identify the mailing address of the inventor. A new supplemental Declaration in compliance with 37 CFR § 1.67(a) is provided herewith.

**IV. Claims 1-14 are Enabled**

Claims 1-14 were rejected under 35 U.S.C. § 112 ¶1. The Examiner contends that the specification does not enable one skilled in the art to make and use the invention generically having a "non-chloride type accelerator" and a "nitrate-based corrosion inhibitor."

To correct an error in the Office Action, note that the specification discloses a nitrite-based corrosion inhibitor (not nitrate-based).

A patent application need not include, "and preferably omits, what is well known in the art." *Specta-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1988). In the field of concrete construction, it is well known in the art that there are numerous types of

commercially available admixtures having compositions generally described. For example, Applicant brings to the Examiner's attention the *Approved List of Concrete Admixtures* and the *Approved List of Corrosion Inhibitors* published by the Illinois Department of Transportation (IDOT), attached as Exhibits A and B to Applicant's Declaration under 37 CFR § 1.132, included herewith. Page 5 of the *Approved List of Concrete Admixtures* lists a number of accelerating admixtures. One skilled in the art need only refer to the manufacturers' specification sheets to determine which accelerating admixtures are of the non-chloride type. Likewise the *Approved list of Corrosion Inhibitors*, attached as Exhibit B to Applicant's § 1.132 Declaration, lists a number of nitrite-based inhibitors. Note (2) on the corrosion inhibitors designates six of the seven approved admixtures as calcium nitrite based inhibitors. Other state departments of transportation have similar lists of admixtures and the various types are known in the art. Reasonable experimentation is permitted. *Atlas PowderCo. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1576 (Fed. Cir. 1984). Therefore, it would not require undue experimentation for one skilled in the art to select a non-chloride type accelerator and a nitrite-based inhibitor to practice the invention of the present disclosure.

Furthermore, the specification need only to disclose one mode of practicing the invention to be enabling. *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1335 (Fed. Cir. 2003).

As shown by Applicant's § 1.132 Declaration and Exhibits A and B attached thereto, non-chloride type accelerators and nitrite-based corrosion inhibitors are known in the art. Because one skilled in the art knows what non-chloride type accelerators and nitrite-based corrosion inhibitors are and how to select them, and the specification describes how to test whether the admixture achieves rapid setting of concrete at low temperatures, undue experimentation is not required.

Because the specification discloses the admixtures of POZZUTEC 20 and RHEOCRETE CNI and DCI S being used in trials as specific examples of admixtures known in the art, applicant has met his obligation to provide an enabling disclosure. Therefore, Applicant respectfully traverses the rejection based upon 35 U.S.C. § 112 ¶1.

#### V. Claims 1-14 are Definite

Claims 1-14 were rejected under 35 U.S.C. § 112 ¶2 as being indefinite. The Examiner contends that the terms "non-chloride type accelerator" and a "nitrate-based corrosion inhibitor" are not adequately described in the specification and therefore impossible to determine the subject matter of the invention.

As discussed in section IV herein, note that the specification discloses a nitrite-based corrosion inhibitor (not nitrate-based).

The specification discloses a non-chloride type accelerator and a nitrite-based corrosion inhibitor. As discussed in section IV herein, these terms are known to those of skill in the art - indeed there are published lists for these substances.

A patent application need not include, "and preferably omits, what is well known in the art." *Specta-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1988). In the field of concrete construction, it is well known in the art that there are numerous types of commercially available admixtures which fall in various published classes. For example, Applicant brings to the Examiner's attention the *Approved List of Concrete Admixtures* and the *Approved List of Corrosion Inhibitors* published by the Illinois Department of Transportation (IDOT), attached as Exhibits A and B to Applicant's Declaration under 37 CFR § 1.132. Page 5 of the *Approved List of Concrete Admixtures* lists a number of accelerating admixtures. One skilled in the art need only refer to the manufacturers' specification sheets to determine which accelerating admixtures are of the non-chloride type. Likewise the *Approved list of Corrosion Inhibitors*, attached as Exhibit B to Applicant's §

132 Declaration, lists a number of nitrite-based inhibitors. Note (2) on the corrosion inhibitors designates six of the seven approved admixtures as calcium nitrite based inhibitors. Other state departments of transportation have similar lists of admixtures and the various types are known in the art. Therefore, it would not require undue experimentation for one skilled in the art to select a non-chloride type accelerator and a nitrite-based inhibitor to practice the invention of the present disclosure.

Since one skilled in the art knows what non-chloride type accelerators and nitrite-based corrosion inhibitors are and how to select them, Applicant has adequately described his invention and the metes and bounds may therefore be determined. The Applicant has disclosed two classes of compounds known in the art sufficiently to determine the scope of his invention. Therefore, Applicant respectfully traverses the rejection based upon 35 U.S.C. § 112 ¶2.

Claim 2 has been amended to include a period at the end of the claim.

Claims 3 and 11 have been amended to remove the language "% parts."

Claims 5 and 6 which contained trademark notations have been withdrawn.

## **VI. A Prima Facie Case of Obviousness is Not Established**

Claims 1-14 were rejected under 35 U.S.C. § 103(a) over Anderson et al. The Examiner contends that Anderson et al. inherently discloses the Applicant's invention because the same substances are used in the concrete mixture of Anderson et al.

To establish a prima facie case of obviousness, there must be (1) "some suggestion or motivation . . . to modify the reference or combine reference teachings;" (2) reasonable expectation of success; and (3)the reference must teach all or suggest all claim limitations. See MPEP 2142.

A prima facie case of obviousness has not been established because although Anderson et al. disclose non-chloride type accelerators and nitrite-based corrosion inhibitors

as components of a concrete mixture, there is no teaching or suggestion to combine these two substances, or that combining these two substances will result in successfully accelerating the set time for concrete containing fly ash at cold temperatures.

Inherency may be used to establish obviousness only if it would have been obvious to one skilled in the art. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1576 (Fed. Cir. 1986). However, a disclosure that is merely a "laundry list" of elements would not "reasonably lead" those skilled in the art" to particular items of special interest. *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1571 (Fed. Cir. 1996).

The invention of Anderson et al. is an admixture comprising (1) a water reducer, (2) an accelerator, and (3) a retarder. Anderson et al. teach that in addition to their admixture, the concrete mix may contain other components such as aggregate, *corrosion inhibitors*, dampproofing admixtures, permeability reducers, pumping aids, fungicidal, germicidal and insecticidal admixtures, and workability agents such as entrained air, or finely dived powders such as *pozzolans* like *fly ash*. See Anderson et al. p. 9.

The additional components disclosed in Anderson et al. is a mere "laundry list" of components found in typical concrete mixtures. Anderson et al. does not suggest that any of these other components works to reduce set time in cooperation with the water reducer, accelerator, and retarder of their invention. These additional substances are merely other possible components of a concrete mixture. Furthermore, Anderson et al. provide nothing to lead one skilled in the art to think that the addition of these other components would reduce concrete set time at low temperatures. Thus, Anderson et al. provide no motivation to use a non-chloride type accelerator and a nitrite-based corrosion inhibitor together to reduce the set time for a concrete mixture.

Next, there is no reasonable expectation of success in Anderson et al. for use at low temperatures. In fact, Anderson et al. suggest that their invention is effective only at warm

temperature. On page 8 in paragraph 152, Anderson et al. teach that retarders "offset the effect of hot weather on the setting of concrete." Furthermore, Anderson et al. teaches that their invention is effective in the temperature range of 50° to 100° F. Page 10, paragraph 175. However, the lowest ambient air temperature disclosed for any of the examples in Anderson et al. is 62° F. Therefore Anderson et al. do not enable or suggest that their invention will work at low temperatures, below 60° F.

Furthermore, Anderson et al. does not teach or suggest all claim limitations. Anderson et al. does not teach or suggest dosage rates for the nitrite-based corrosion inhibitor. Without disclosing a dosage rate for the nitrite-based corrosion inhibitor, Anderson et al. does not disclose all of Applicant's claim limitations. Therefore, Applicant respectfully traverses the obviousness rejection based on 35 U.S.C. § 103(a).

**VII. Conclusion**

It is submitted that the application is in condition to be passed to allowance. If there are any issues remaining to be resolved, the Examiner is invited to contact the undersigned attorney by telephone so that such issues can be discussed and properly resolved. Applicant requests favorable reconsideration of the present application based on the amendments and remarks set forth herein.

It is believed that no additional fees are due at this time, however, if necessary, please charge any deficiencies or credit any excess to the account of Barnes & Thornburg LLP, deposit account number 12-0913 with reference to our attorney docket number (36194-95262).

Respectfully submitted,

  
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